

VALUE ENGINEERING CHANGE PROPOSAL

MISSOURI DEPARTMENT OF TRANSPORTATION

		Date <u>3/5/10</u>
Contract ID	<u>100122-505</u>	Job No. <u>J5S2177</u>
County	<u>Cooper</u>	Original Bid Cost <u>\$1,522,873.50</u>
	Route <u>87</u>	By <u>Jason Stastny</u>
Contractor	<u>APAC-Missouri, Inc.</u>	Phone <u>573-449-0886</u>
Designed By		VECP <input checked="" type="checkbox"/> or VECPP/PDU <input type="checkbox"/>
VECP #	<u>10-14</u>	

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

On Job J5S2177, APAC would like to propose substituting 1.75 inches of SP125C with PG 64-22 for 1.25 inches of SP095C PG 64-22 for the surface course. This reduction in pavement lift thickness will allow for a reduction in tonnage on the surface course of 1350.88 tons, a total of 3277.72 tons of SP095, as compared to the currently contracted 4628.60 tons of SP125. Our proposed unit price for SP095 PG 64-22 is \$67.28 per ton, totaling \$220,525.00. This is a savings of \$47,517.23 from contract.

SP125 = \$57.91 268,042.23

This reduction in overall mainline pavement thickness will lower the profile of the shoulders as well. Due to the existing conditions of the shoulders from Log Mile 0.564 to 3.435, APAC feels that the current lift-thickness of the A3 shoulders, 3.75", need to remain as designed, but would offer a per SY price reduction for the Type 1 Aggregate Base by lowering the thickness to 3.5 inches from the designed 4" in order to match the new mainline profile. APAC proposed a new unit price of \$3.10 per SY, totaling \$101,038.30. This is a savings of \$8,148.25 from contract.

*3.5" @ \$3.10 / SY
Plan 4" @ 3.35 / SY*

In the curb and gutter area from Log Mile 0.000 to 0.564 where BP1 is called for to overlay the existing concrete shoulder, lowering the profile of the mainline overlay will allow us to lower the profile and quantity of BP-1 needed, changing the profile from 3.75" to 1" to 3.25" to 1". This will reduce the quantity by 87.6 tons, from 1180.3 to 1092.7 tons. At \$46.93 per ton, savings will be \$4,111.07 from contract.

By utilizing SP095 in place of SP125, Modified Cold Milling SY will also be able to be reduced by 219 SY, From 946 SY to 727 SY. At the contract unit price of \$10.72 per SY, this will be a savings of \$2,347.68 from contract.

Aside from the monetary savings listed above, lowering the profile of the mainline and shoulders will reduce the steepness of the grade change of the entrances and side roads both during construction and after the project is completed. This should help ease traffic across these entrances help satisfy local citizens and business owners who live and work in this area. This will also reduce the construction duration and impact to the traveling public by approximately 3 working days. This VE proposal offers a structurally equal product and a great financial savings to MoDOT of almost 5% of the total contract value.

2. Estimate of reduction in construction costs. \$62,124.23

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

(date)

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

(date and/or dates)

Additional Comments:

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

A thinner mat of asphalt will allow movement or stresses to show up through the asphalt mat quicker and possibly allow mat failure quicker.

Charles Sullivan by Brad M. Dwyer 3/15/10

Submitted By Resident Engineer

Date

Comments:

Reducing the overlay structure by $\frac{1}{2}$ " is not desirable. and a computer proposal to APAC to place $2\frac{1}{2}$ " of SP190 w/ $1\frac{1}{4}$ " SP095 in lieu of the current plan 2" SP190 w/ $1\frac{3}{4}$ " SP125 was not cost effective for APAC.

☐ Approval
Recommended

☒ Rejection
Recommended

Roger Schwartz
District Engineer

3/18/10

Date

Comments:

Agree with R.E. and District comments

☐ Approval

☒ Rejection

David D. Coates

State Construction and Materials Engineer

BW

3-19-10

Date

Distribution:

Resident Engineer, Project Manager, District Operations Engineer, State Construction and Materials Engineer
*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☒ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

The contractor proposed to reduce the top lift thickness by ½" by using 1.25" of SP095 in lieu of 1.75" of SP125. Proposal is rejected because it is not desirable to reduce the overlay structure by ½".

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.
